

1 **DIGITAL PHOTO DISPLAY**

2 BACKGROUND OF THE INVENTION

3 1. Field of the Invention

4 The present invention relates to a photo display, and more particularly to
5 a digital photo display having a capability of storing and showing digital photos.

6 2. Description of Related Art

7 To display a photo on a table, a wall or the like, a photo frame is always
8 used to hold a photo. However, a conventional photo frame can only hold and
9 show a single photo, and changing the photo in a conventional photo frame is
10 inconvenient. Therefore, the conventional photo frame is not versatile.

11 To overcome the shortcomings, the present invention provides a digital
12 photo display to mitigate or obviate the aforementioned problems.

13 SUMMARY OF THE INVENTION

14 The main objective of the invention is to provide a digital photo display
15 that can store and show digital photos conveniently to make the photo display
16 versatile. The digital photo display has a display assembly and a frame. The
17 display assembly has a body, a memory card port and a screen. The body has a
18 main control circuit and a periphery with a top, two sides and a bottom, a front
19 side and a rear side. The main control circuit is mounted in the body. The
20 memory card port is mounted in the periphery of the body and is electrically
21 connected to the main control circuit so a memory card can be inserted into the
22 memory card port. The screen is mounted on the front side of the body and is
23 electrically connected to the main control circuit in the body to show a digital
24 photo on the screen. The frame is attached to the body of the display assembly

1 and has a window corresponding to the screen.

2 Other objects, advantages and novel features of the invention will
3 become more apparent from the following detailed description when taken in
4 conjunction with the accompanying drawings.

5 **BRIEF DESCRIPTION OF THE DRAWINGS**

6 Fig. 1 is a perspective view of a first embodiment of a digital photo
7 display in accordance with the present invention;

8 Fig. 2 is an exploded perspective view of the digital photo display in Fig.
9 1;

10 Fig. 3 is a functional block diagram of the display assembly of the digital
11 photo display in Fig. 1;

12 Fig. 4 is an exploded perspective view of a second embodiment of a
13 digital photo display in accordance with the present invention;

14 Fig. 5 is an exploded perspective view of a third embodiment of a digital
15 photo display in accordance with the present invention; and

16 Fig. 6 is an exploded perspective view of a fourth embodiment of a
17 digital photo display in accordance with the present invention.

18 **DETAILED DESCRIPTION OF PREFERRED EMBODIMENT**

19 With reference to Figs. 1 to 3, a first embodiment of a digital photo
20 display in accordance with the present invention comprises a display assembly
21 (20) and a frame (10). The display assembly (20) comprises a body (not
22 numbered), a memory card port (22), a screen (24) and multiple optional buttons
23 (23). The body has a periphery composed of a top, two sides and a bottom, a
24 front, a rear, a main control circuit, an optional stand rod (21) and an optional

1 suspension hole (72). The main control circuit is mounted in the body and has a
2 memory unit for storing digital photos. The memory card port (22) is mounted in
3 the periphery of the body and is electrically connected to the main control circuit,
4 and a memory card (not shown) can be inserted into the memory card port (22).

5 In an optional embodiment, the memory card port (22) is mounted in the top of
6 the body. Accordingly, digital photos stored in a memory card can be transferred
7 to and stored in the memory unit of the main control circuit when the memory
8 card is inserted into the memory card port (22).

9 The multiple optional buttons (23) are mounted on the periphery of the
10 body and electrically connected to the main control circuit. With the
11 arrangement of the buttons (23), a user can control and switch functions and
12 modes of the main control circuit, such as turning on/off the photo display,
13 changing the shown photo, reading or deleting the photos and so on. In an
14 alternative embodiment, the main control circuit can be controlled with a remote
15 controller.

16 The screen (24) is mounted on the front of the body and is electrically
17 connected to the main control circuit in the body to show a digital photo stored in
18 the main control circuit on the screen (24). The screen may be a liquid crystal
19 display (LCD).

20 The main control circuit and the electrical connection between the main
21 control circuit, the memory card port (22), the screen (24) and the buttons (23)
22 are same as that used in a digital camera and is not further described.

23 The optional stand rod (21) is mounted on the rear of the body to hold
24 stably the photo display upright on a table or the like.

1 The frame (10) is attached to the front of the body of the display
2 assembly (20). The frame (10) has a front (13), a rear (11), an optional flange
3 (not numbered), a window (12) and an outer edge (not numbered). The optional
4 flange is formed on and extends around the rear side (11) at the outer edge of the
5 frame (10). The window (12) is defined through the frame (10) from the front
6 side (13) to the rear side (11) and corresponds to the screen (24) on the display
7 assembly (20) to make the screen (24) visible through the window (12). In the
8 first embodiment, the frame (10) is securely attached to the front of the body of
9 the display assembly (20) with a compression fit or an adhesive. In addition,
10 decorative elements can be selectively applied to the front (11) of the frame (10)
11 to improve the appearance of the photo display.

12 The digital photo display can show digital photos stored in the main
13 control circuit, and a person can easily change the photo displayed on the screen
14 by pressing the buttons (23) on the body. The user can import additional photos
15 into the photo display through the memory card port (22) to show different
16 photos. Therefore, the use of the photo display is convenient and versatile.

17 With reference to Fig. 4, a second embodiment of a digital photo display
18 in accordance with the present invention is the same as the first embodiment
19 except for the attachment of the frame (30) to the display assembly (40). In the
20 second embodiment, the body of the display assembly (40) has multiple through
21 holes (41) defined through the body from the front to the rear. The frame (30) has
22 multiple stubs (32) formed on the rear (11) and corresponding respectively to the
23 through holes (41) in the body. Each stub (32) has a threaded hole (321) aligning
24 with the corresponding through hole (41) in the body. Multiple screws (411)

1 extend respectively through the through holes (411) in the body and are screwed
2 respectively into the threaded holes (321) in the stubs (32) on the frame (30) to
3 securely attach the frame (30) to the front of the body.

4 With reference to Fig. 5, a third embodiment of a digital photo display in
5 accordance with the present invention is the same as the first embodiment except
6 for the attachment of the frame (50) to the display assembly (60). In the third
7 embodiment, the frame (50) has multiple L-shaped engaging arms (53) laterally
8 extending from the flange of the frame (50) to hold the body. A notch (52) is
9 defined in the flange on the frame (50) to make a passage to allow the body to
10 pass through the passage and be engaged between the arms (53). With the
11 engaging arms (53), the display assembly (60) is detachably mounted with the
12 frame (50).

13 With reference to Fig. 6, the optional suspension hole (72) is defined in
14 the rear of the body and may be defined in a block formed on the rear side of the
15 body. With the arrangement of the suspension hole (72), the digital photo display
16 can be hung on a wall or the like.

17 Even though numerous characteristics and advantages of the present
18 invention have been set forth in the foregoing description, together with details
19 of the structure and function of the invention, the disclosure is illustrative only,
20 and changes may be made in detail, especially in matters of shape, size, and
21 arrangement of parts within the principles of the invention to the full extent
22 indicated by the broad general meaning of the terms in which the appended
23 claims are expressed.